

E 0706 WO

C L A I M S

1. Method for evaluating recorded wafer images characterized by the following steps:

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- recording the image of at least one reference wafer,
 - determining and representing on a user interface the radial distribution of the values measured on the reference wafer as a radial homogeneity function, and
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- changing a radially dependent sensitivity profile while taking into account the radial homogeneity function of the reference wafer by varying at least one parameter of the sensitivity profile, the learned sensitivity profile being determined visually by

15 comparison with the radial homogeneity function.

2. Method as defined in claim 1, characterized in that the determination of defects is carried out on at least one additional wafer by comparison between the learned sensitivity profile of the at least one reference wafer with the measured radial distribution of the homogeneity function of the at least one other wafer, a defect being determined from the comparison of the measured radial distribution of the homogeneity function with the learned sensitivity profile.

20 3. Method as defined in claim 1, characterized in that the defect is determined by the fact that the measured radial distribution of the homogeneity function falls below the learned sensitivity profile and as such is marked on a graphic representation of the at least one other wafer

25 4. Method as defined in claim 1, characterized in that the learned sensitivity profile depends on the distance from the center point of the wafer.

30 5. Method as defined in claim 1, characterized in that several different profile forms can be selected by the user to determine the learned sensitivity profile.

6. Method as defined in claim 5, characterized in that three different profile forms can be selected by the user to determine the learned sensitivity profile.
7. Method as defined in one of claims 1 to 6, characterized in that a first profile form is independent of the radial position on the wafer.
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8. Method as defined in one of claims 1 to 6, characterized in that a second profile form has a first and a second section at least one of which can be varied in slope.
- 10 9. Method as defined in one of claims 1 to 6, characterized in that there is provided a third profile form having a first, second and third section of which at least one can be varied in slope.
10. Method according to one of the preceding claims, characterized in that at least one parameter can be changed so as to adapt the sensitivity profile to the radial homogeneity
15 function of a wafer.
11. Method as defined in claim 10, characterized in that at least one parameter defines the radial position of a transition between two sections of the sensitivity profile differing in slope.
- 20 12. Method as defined in claim 10, characterized in that a parameter defines the level of the sensitivity profile, it being possible to set at least three levels of the sensitivity profile.
13. Method as defined in claim 12, characterized in that the setting of the level can be changed by use of a slider.
- 25 14. Method as defined in one of claims 1 to 13, characterized in that several learned sensitivity profiles can be combined.
15. Method as defined in one of claims 1 to 13, characterized in that a learned sensitivity profile
30 can at any time be replaced by a relearned sensitivity profile.